



Scientific exploitation of databases for risk evaluation in a foodsafety context

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FAVV - Controlebeleid

Content

1. Reglementations
2. Frequently occurring problems when consulting databases
3. Most important databases of the FASFC
4. Consultability of the databases of the FASFC

1. Reglementations

- Personal data in general
 - Law 08/12/1992: safeguarding personal privacy
 - Law 08/08/1983: national register of physical persons
 - Law 15/01/1990: crossroad bank of social security
 - Law 16/01/2003: crossroad bank of enterprises
- Specific regulations:
 - FPS Finance
 - Regions: law programme 04/02/2000 (+ specific regulations)
- Non personal data
 - Agreed by FASFC (not against own objectives)
 - Quotation of sources in publications

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2. **Frequently occurring problems when consulting databases**
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2. Problems when consulting databases

- ❑ Knowledge of the metadata
- ❑ Absent or useless data
- ❑ Correct linking between tables
- ❑ Correct conditions
- ❑ Wrong interpretation of data

Metadata

- ❑ **Metadata in general:**
data describing the characteristics of certain data (data about data).
- ❑ **Metadata in databases:**
The description of the format and the content of different elements of a database: i.e. `labels` and records
- ❑ **Example:**
 - Format eartag number: landcode, control number, text
 - Content: bovine_status, global_status,
 - Precise: dat_term
- ❑ **Clear descriptions are often absent!**

Absent or unusable data

- ❑ Absent data: gradations
 - Field not mandatory in the application
 - Field not in application, but in table
 - Field not foreseen in databank
- ❑ Useless data
 - “Free” fields
 - Text format instead of numbers
 - Field used for other information
 - Insufficient preciseness
- ❑ **NB: certain data have to be calculated** (i.e. number of bovine in an exploitation)

Correct linking between tables

- Type of linking (+)

i.e. all operators of a sector with their autocontrol system

- Linking the correct fields

i.e. exploitation nr in table RUND: beslnr, vor_beslnr,
vol_beslnr, beslnr_geb

Correct conditions

- ❑ Classic conditions: <, >, =, in , ...
- ❑ Metadata
 - Dataformat: text, number, date, ...
 - i.e. status operator in BOOD
 - ...

Interpretation of the result

- Start from “logical” numbers

Always verify if numbers are realistic (correct linking, correct conditions)

i.e. number of bovine = > 19 milj

- Draw “logical” conclusions

i.e.: vaccination Aujeszky

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Most important databases

- ❑ BOOD
- ❑ FoodNet
- ❑ LIMS
- ❑ SaniTrace
- ❑ TRACES

NB. Distinction between DB and application

BOOD

- ❑ **What:** Operator database: ON, VEN
- ❑ **Origin:** legacy databases of FASFC + KBO (+ RR)
- ❑ **Content:** contains data on i.e.:
 - Name, adress, ...
 - Activity (masterdata)
- ❑ **Use:** authentic source for all applications of FASFC
- ❑ **Remarks:**
 - Quality of data: permanently amelioriated
 - Good knowledge of metadata is mandatory
 - Additional attributes in preparation: ACS, ...

FoodNet

- ❑ What: database of the control activities
- ❑ Origin: new DB
- ❑ Content: contains data about:
 - Missions (planning, changements, control, ...)
 - Observations and actions (checklists, sampling, ...)
 - Results of laboratory tests (LIMS)
 - Allocated time and accounting data
- ❑ Remarks:
 - Uses masterdata: activities, parameters, matrices, ...
 - In full development

LIMS

- ❑ What: laboratory database
- ❑ Origin: new database
- ❑ Content: contains data about:
 - Reception and treatment of the monsters
 - Procedures for testing
 - Surveillance of laboratory processes
 - Detail of test results (including limits)
- ❑ Remarks:
 - Uses masterdata
 - In full development

SaniTrace

- ❑ What: database of living animals and slaughterings
- ❑ Origin: Sanitel and Beltrace
- ❑ Content: contains data about:
 - Identification of animals, exploitations and owners of animals
 - Movements of animals
 - Status (sanitary, residues, contaminants, ...)
 - Inspection observations and decisions
- ❑ Remarks:
 - Actually in transition period (two sources)
 - Not all data are migrated

TRACES

- ❑ What: European database of intracommunautary (i.c.) movements of animals and animal products.
- ❑ Origin: successor of earlier ANIMO and SHIFT
- ❑ Content: contains data about:
 - Persons and places concerning i.c. trade traffic
 - Regions in Europe with trade limitations
 - Health certificates for i.c. trade traffic and transit
 - Control results of BIP
- ❑ Remarks:
 - Not up to date for all member states. EU increases pressure
 - Exchange of data with own system has to be foreseen

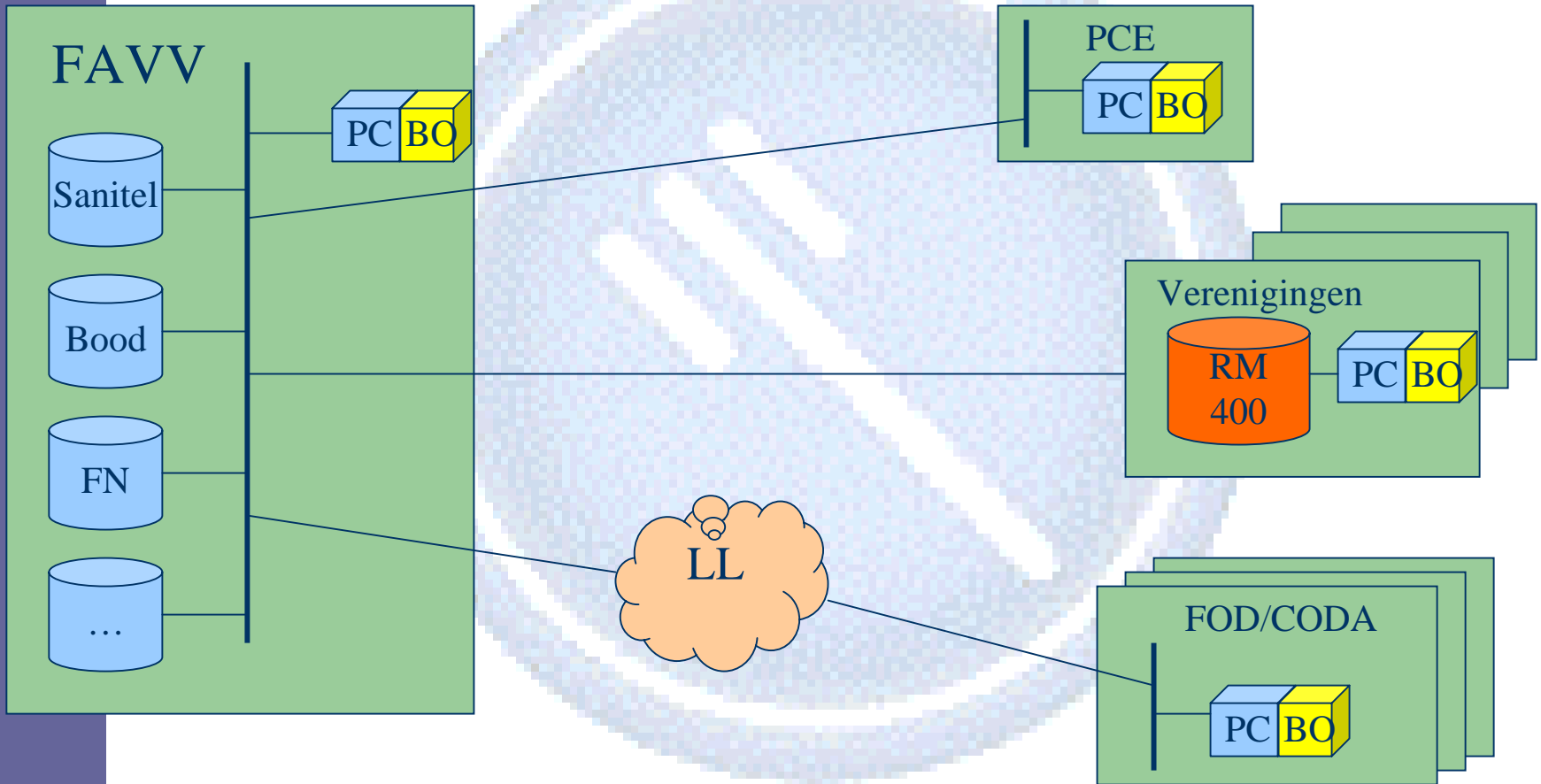
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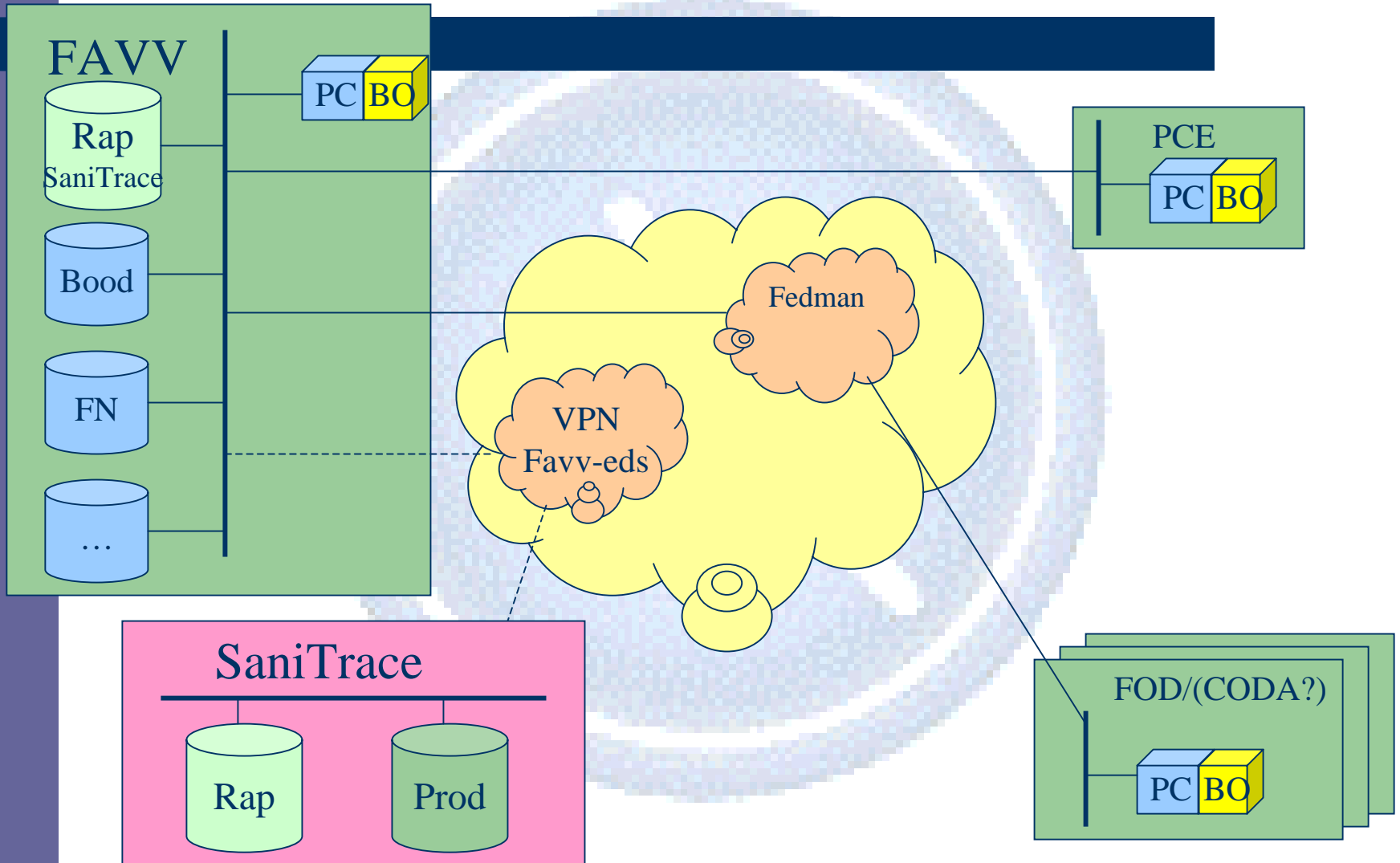
Consultability

- ❑ Query tools for Oracle databases: reserved to limited number of users
- ❑ Business Objects (BO): tool for users of the FASFC
- ❑ Principle of BO:
 - Databases and records are transferred in more understandable “objects” with (ad the background) the correct linking.
No knowledge necessary of the database structure
 - Developing new queries or using existing queries (“Exploitation documents” with metadata)

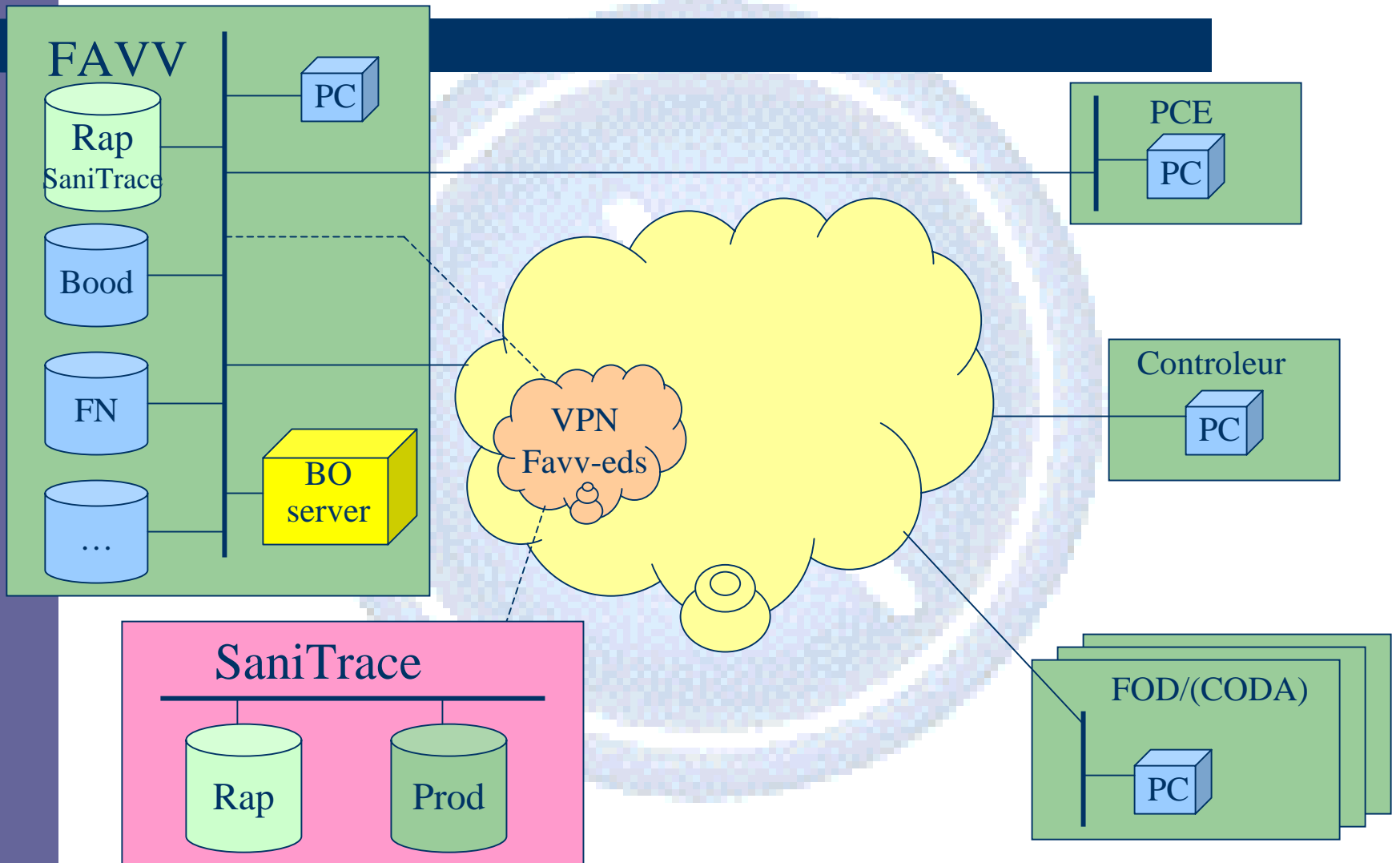
BO local (Sanitel)



BO local (SaniTrace)



BO Web



Conclusions

- ❑ Management of databases and use of data is regulated
- ❑ The FASFC uses multiple big databases
- ❑ To select correct data in complex database is not always simple
- ❑ The datamining tool of the FASFC is BO